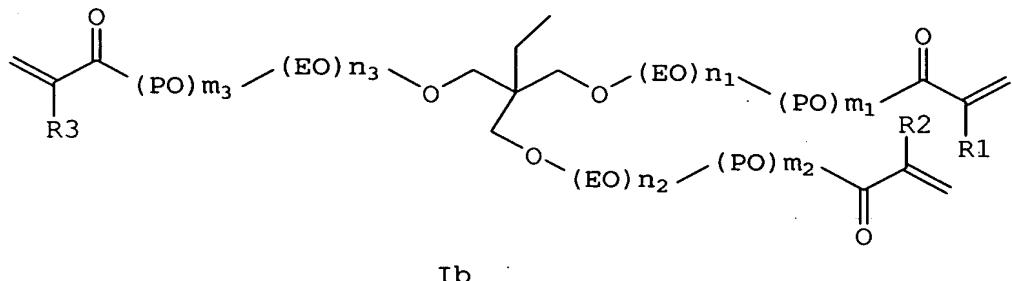


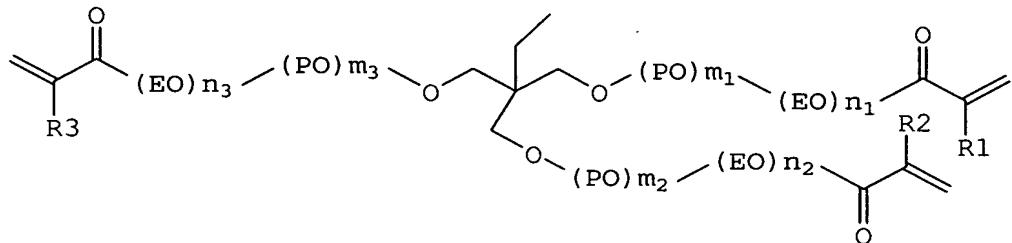
IN THE CLAIMS:

1. (Previously presented) An ester F of formula Ib



Ib

or



Ic

wherein EO is O-CH₂-CH₂-,

PO is independently at each instance O-CH₂-CH(CH₃) or O-CH(CH₃)-CH₂-,

n₁ + n₂ + n₃ is 28, 29, 30, 31, 32, 33, 34,

35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, or 60,

m₁ + m₂ + m₃ is 4, 5, 6, 7, 8, 9, 10, 11, 12,

or 13,

R₁, R₂, and R₃ are independently H or CH₃.

2. (Cancelled)

3. (Previously presented) The ester F of claim 1 wherein n1, n2, and n3 are independently 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20.

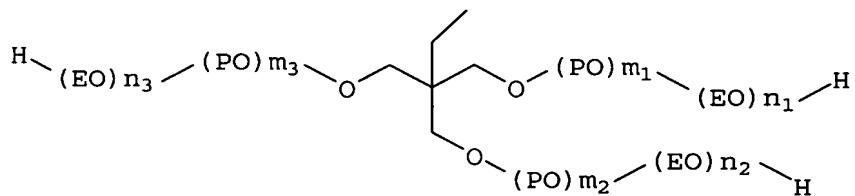
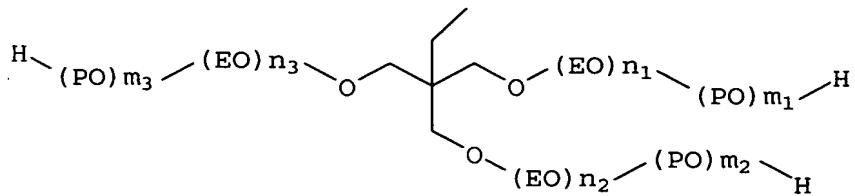
4. (Previously presented) The ester F of claim 1 wherein m1, m2, and m3 are independently 1, 2, 3, 4, or 5.

5. (Previously presented) The ester F of claim 1 wherein m1 + m2 + m3 is 5 or 10.

6. (Previously presented) The ester F of claim 1 wherein n1 + n2 + n3 is 30 or 50.

7. (Previously presented) The ester F of claim 1 wherein R1, R2, and R3 are identical.

8. (Currently amended) A process for preparing an ester F of claim 1 from an alkoxylated trimethylolpropane of the formula IIb or IIc



wherein EO, PO, n1, n2, n3, m1, m2, and m3 are each as defined in claim 1,

and (meth)acrylic acid, comprising the steps of

a) reacting the alkoxylated trimethylolpropane IIb or IIc with the (meth)acrylic acid in the presence of at least one esterification catalyst C, at least one polymerization inhibitor D, and optionally a water-azeotroping solvent E to form an the ester F, wherein a molar excess of (meth)acrylic acid to alkoxylated trimethylolpropane is at least 3.15:1,

b) optionally removing from the reaction mixture some or all of the water formed in a), during and/or after a),

f) optionally neutralizing the reaction mixture,

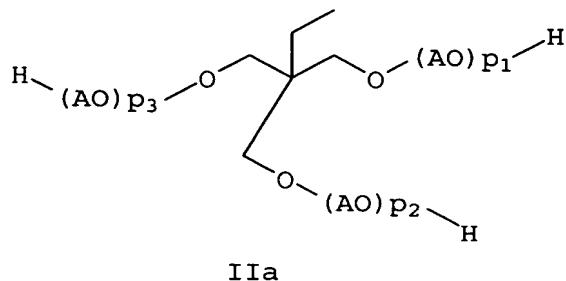
h) when a solvent E is used, optionally removing the solvent E by distillation, and/or

i) stripping the reaction mixture with a gas which is inert under the reaction conditions.

9. (Currently amended) The process of claim 8 wherein

a molar excess of (meth)acrylic acid to alkoxylated trimethylolpropane is at least 3.15:1, and the optionally neutralized (meth)acrylic acid present in the reaction mixture after the last process step substantially remains in the reaction mixture.

10. (Currently amended) A process for preparing an ester F of alkoxylated trimethylolpropane of the formula IIa



wherein AO is for each AO independently EO, PO, and BO,

EO is O-CH₂-CH₂-,

PO is independently at each instance O-CH₂-CH(CH₃)- or O-CH(CH₃)-CH₂-,

BO is independently at each instance O-CH₂-CH(CH₂-CH₃)- or O-CH(CH₂-CH₃)-CH₂-,

p₁ + p₂ + p₃ is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, or 75,

and (meth)acrylic acid, comprising the steps of

a) reacting the alkoxylated trimethylolpropane IIa with the (meth)acrylic acid in the presence of at least one esterification catalyst C, at least one polymerization inhibitor D, and optionally a water-azeotroping solvent E to form an the ester F,

b) optionally removing from the reaction mixture some or all of the water formed in a), during and/or after a),

f) optionally neutralizing the reaction mixture,

h) when a solvent E is used, optionally removing the solvent E by distillation, and/or

i) stripping the reaction mixture with a gas which is inert under the reaction conditions, wherein

a molar excess of (meth)acrylic acid to alkoxylated trimethylolpropane is at least 7.5:1, and

the optionally neutralized (meth)acrylic acid present in the reaction mixture after the last process step substantially remains in the reaction mixture.

11. (Previously presented) The process of claim 8 wherein the (meth)acrylic acid is not more than 75% by weight removed from the reaction mixture obtained after the process last step, which reaction mixture contains the ester F.

12. (Previously presented) The process of claim 8 wherein the reaction mixture obtained after the process last step, which contains the ester F, has a DIN EN 3682 acid number of at least 25 mg of KOH/g.

13. (Previously presented) The process of claim 8 wherein the reaction mixture obtained after the process last step, which contains the ester F, has a (meth)acrylic acid content of at least 0.5% by weight.

14. (Previously presented) The process of claim 8 wherein the molar ratio of (meth)acrylic acid to alkoxyolated trimethylolpropane in step a) is at least 15:1.

15. (Currently amended) A process for preparing a crosslinked hydrogel, comprising the steps of

- k) polymerizing an ester F of claim 1 with (meth)acrylic acid, and an optional additional monoethylenically unsaturated compound N and optionally at least one further copolymerizable hydrophilic monomer M, in the presence of at least one free-radical initiator K and optionally ~~ef~~ at least one grafting grafting base L,
- l) optionally postcrosslinking the reaction mixture obtained from k),
- m) drying the reaction mixture obtained from k) or l), and
- n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

16. (Currently amended) The process for preparing a crosslinked hydrogel, comprising steps a) to i) of claim 8 and additionally

k) polymerizing the reaction mixture from one of steps a) to i) if performed, with an optional additional monoethylenically unsaturated compound N and optionally at least one further copolymerizable hydrophilic monomer M in the presence of at least one free-radical initiator K and optionally of at least one grafting base L,

l) optionally postcrosslinking the reaction mixture obtained from k),

m) drying the reaction mixture obtained from k) or l), and

(n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

17. (Previously presented) A crosslinked hydrogel prepared according to the process of claim 15.

18. (Previously presented) A crosslinked hydrogel containing at least one hydrophilic monomer M in polymerized form crosslinked with an ester F of claim 1.

19. (Previously presented) A crosslinked hydrogel containing at least one hydrophilic monomer M in polymerized form crosslinked with a reaction mixture which contains an ester F and is prepared according to the process of claim 8.

20. (Cancelled)

21. (Previously presented) A composition comprising

from 0.1% to 40% by weight of at least one ester F of claim 1 and (meth)acrylic acid,

0.5-99.9% by weight of at least one hydrophilic monomer M,

0-10% by weight of at least one esterification catalyst C,

0-5% by weight of at least one polymerization inhibitor D, and

0-10% by weight of a solvent E,

with the proviso that the sum total is always 100% by weight.

22. (Previously presented) The composition of claim 21 further comprising

a diluent G.

23. (Previously presented) A crosslinked hydrogel prepared from a composition of claim 21 and additionally optionally postcrosslinked.

24. (Cancelled)

25. (Previously presented) A crosslinked hydrogel of claim 18 having a residual crosslinker content of less than 10 ppm.

26. (Cancelled)

27. (Previously presented) The ester F of claim 1 wherein R1, R2, and R3 are H.

28. (Previously presented) The process of claim 10 wherein the (meth)acrylic acid is not more than 75% by weight removed from the reaction mixture obtained after the process last step, which reaction mixture contains the ester F.

29. (Previously presented) The process of claim 10 wherein the reaction mixture obtained after the last process step, which contains the ester F, has a DIN EN 3682 acid number of at least 25 mg of KOH/g.

30. (Previously presented) The process of claim 10 wherein the reaction mixture obtained after the last process step, which contains the ester F, has a (meth)acrylic acid content of at least 0.5% by weight.

31. (Previously presented) The process of claim 10 wherein the molar ratio of (meth)acrylic acid to alkoxylated trimethylolpropane in step a) is at least 15:1.

32. (Previously presented) An article comprising a crosslinked hydrogel of claim 18.

33. (Previously presented) The article of claim 32 selected from the group consisting of a hygiene article, a packaging material, and a nonwoven.

34. (Previously presented) The crosslinked hydrogel of claim 25 having a residual crosslinked content of less than 5 ppm.

35. (Currently amended) A process for preparing a crosslinked hydrogel, comprising the steps of

k) polymerizing an ester F of claim 10 with (meth)acrylic acid and an optional additional mono-ethylenically unsaturated compound N and optionally at least one further copolymerizable hydrophilic monomer M, in the presence of at least one free-radical initiator K and optionally ~~ef~~ at least one grating grafting base L,

l) optionally postcrosslinking the reaction mixture obtained from k),

m) drying the reaction mixture obtained from k) or l), and

n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).